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NEWS 12 Jul 02 FOREGE no longer contains STANDARDS file segment  
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saved answer sets no longer valid  
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NEWS 17 Aug 08 PHARMAMarketLetter(PHARMAML) - new on STN  
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now available on STN  
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NEWS 21 Aug 19 The MEDLINE file segment of TOXCENTER has been reloaded  
NEWS 22 Aug 26 Sequence searching in REGISTRY enhanced  
NEWS 23 Sep 03 JAPIO has been reloaded and enhanced  
NEWS 24 Sep 16 Experimental properties added to the REGISTRY file  
NEWS 25 Sep 16 Indexing added to some pre-1967 records in CA/CAPLUS  
NEWS 26 Sep 16 CA Section Thesaurus available in CAPLUS and CA  
NEWS 27 Oct 01 CASREACT Enriched with Reactions from 1907 to 1985  
NEWS 28 Oct 21 EVENTLINE has been reloaded  
NEWS 29 Oct 24 BEILSTEIN adds new search fields  
NEWS 30 Oct 24 Nutraceuticals International (NUTRACEUT) now available on STN  
NEWS 31 Oct 25 MEDLINE SDI run of October 8, 2002  
NEWS 32 Nov 18 DKILIT has been renamed APOLLIT  
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NEWS 34 Dec 02 TIBKAT will be removed from STN  
NEWS 35 Dec 04 CSA files on STN

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=> s l1 and vesicle?

L2 75 L1 AND VESICLE?

=> s l2 and mastocyst?

L3 0 L2 AND MASTOCYST?

=> s l2 and mastocyte?

L4 0 L2 AND MASTOCYTE?

=> s l1 and mastocyte

L5 0 L1 AND MASTOCYTE

=> s l2 and exosome?

L6 38 L2 AND EXOSOME?

=> s l6 and basophil?

L7 0 L6 AND BASOPHIL?

=> dup rem 16  
PROCESSING COMPLETED FOR L6  
L8 16 DUP REM L6 (22 DUPLICATES REMOVED)

=> dis 18 1-16 ibib abs

L8 ANSWER 1 OF 16 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 2002:894235 CAPLUS  
TITLE: Indirect activation of naive CD4+ T cells by dendritic  
cell-derived **exosomes**  
AUTHOR(S): Thery, Clotilde; Duban, Livine; Segura, Elodie; Veron,  
Philippe; Lantz, Olivier; **Amigorena, Sebastian**  
CORPORATE SOURCE: INSERM U520, Institut Curie, 12 rue Lhomond, Paris,  
75005, Fr.  
SOURCE: Nature Immunology (2002), 3(12), 1156-1162  
CODEN: NIAMCZ; ISSN: 1529-2908  
PUBLISHER: Nature Publishing Group  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Dendritic cells (DCs) secrete **vesicles** of endosomal origin,  
called **exosomes**, that bear major histocompatibility complex  
(MHC) and T cell costimulatory mols. Here, we found that injection of  
antigen- or peptide-bearing **exosomes** induced antigen-specific  
naive CD4+ T cell activation in vivo. In vitro, **exosomes** did  
not induce antigen-dependent T cell stimulation unless mature CD8.alpha.-  
DCs were also present in the cultures. These mature DCs could be MHC  
class II-neg., but had to bear CD80 and CD86. Therefore, in addn. to  
carrying antigen, **exosomes** promote the exchange of functional  
peptide-MHC complexes between DCs. Such a mechanism may increase the no.  
of DCs bearing a particular peptide, thus amplifying the initiation of  
primary adaptive immune responses.

L8 ANSWER 2 OF 16 MEDLINE DUPLICATE 1  
ACCESSION NUMBER: 2002352649 IN-PROCESS  
DOCUMENT NUMBER: 22090603 PubMed ID: 12096030  
TITLE: **Exosomes** bearing HLA-DR1 molecules need dendritic  
cells to efficiently stimulate specific T cells.  
AUTHOR: **Vincent-Schneider Helene**; Stumptner-Cuvelette  
Pamela; Lankar Danielle; Pain Sabine; Raposo Graca;  
**Benaroch Philippe; Bonnerot Christian**  
CORPORATE SOURCE: INSERM U520, Institut Curie, 26 rue d'Ulm, 75248 Paris  
Cedex 05, France. CNRS, UMR 144, Institut Curie, 12 rue  
Lhomond, 75005 Paris, France.  
SOURCE: INTERNATIONAL IMMUNOLOGY, (2002 Jul) 14 (7) 713-22.  
Journal code: 8916182. ISSN: 0953-8178.  
PUB. COUNTRY: England: United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: IN-PROCESS; NONINDEXED; Priority Journals  
ENTRY DATE: Entered STN: 20020704  
Last Updated on STN: 20020704

AB **Exosomes** are small **vesicles** (60-100 nm) secreted by  
various cell types upon the fusion of endosomal compartments with the  
plasma membrane. **Exosomes** from antigen-presenting cells (APC),  
such as B lymphocytes and dendritic cells (DC), bear MHC class II  
molecules. In addition, the injection of DC-derived **exosomes** was  
reported to elicit potent T cell responses in vivo. Here, we analyzed the  
activation of specific T cells by MHC class II-bearing **exosomes**  
in vitro. The rat mast cell line, RBL-2H3, was engineered to express human  
class II molecules uniformly loaded with an antigenic peptide  
[HLA-DR1-hemagglutinin (HA)]. These cells secreted **exosomes**  
bearing DR1 class II molecules upon stimulation by a calcium ionophore or  
IgE receptor cross-linking. **Exosomes** bearing DR1-HA(306-318)  
complexes activated HA/DR1-specific T cells only weakly, whereas the

cross-linking of such **exosomes** to latex beads increased stimulation of specific T cells. By contrast, the incubation of free **exosomes** with DC resulted in the highly efficient stimulation of specific T cells. Thus, **exosomes** bearing MHC class II complexes must be taken up by professional APC for efficient T cell activation.

L8 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:575897 CAPLUS

DOCUMENT NUMBER: 137:183978

TITLE: **Exosomes**: Composition, Biogenesis and Function

AUTHOR(S): Thery, Clotilde; Zitvogel, Laurence; **Amigorena, Sebastian**

CORPORATE SOURCE: INSERM U520, Institut Curie, Paris, 75005, Fr.

SOURCE: Nature Reviews Immunology (2002), 2(8), 569-579  
CODEN: NRIABX; ISSN: 1474-1733

PUBLISHER: Nature Publishing Group

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review. **Exosomes** are small membrane **vesicles** of endocytic origin that are secreted by most cells in culture. Interest in **exosomes** has intensified after their recent description in antigen-presenting cells and the observation that they can stimulate immune responses in vivo. In the past few years, several groups have reported the secretion of **exosomes** by various cell types, and have discussed their potential biol. functions. Here, we describe the phys. properties that define **exosomes** as a specific population of secreted **vesicles**, we summarize their biol. effects, particularly on the immune system, and we discuss the potential roles that secreted **vesicles** could have as intercellular messengers.

REFERENCE COUNT: 69 THERE ARE 69 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 4 OF 16

MEDLINE

DUPLICATE 2

ACCESSION NUMBER: 2002398522 MEDLINE

DOCUMENT NUMBER: 22142699 PubMed ID: 12147373

TITLE: Malignant effusions and immunogenic tumour-derived **exosomes**.

COMMENT: Comment in: Lancet. 2002 Jul 27;360(9329):268

AUTHOR: Andre Fabrice; Schartz Noel E C; Movassagh Mojgan; Flament Caroline; Pautier Patricia; Morice Philippe; Pomel Christophe; Lhomme Catherine; Escudier Bernard; Le Chevalier Thierry; Tursz Thomas; **Amigorena Sebastian**; Raposo Graca; Angevin Eric; Zitvogel Laurence

CORPORATE SOURCE: Departments of Clinical Biology, Immunology Unit, Institut Gustave Roussy, Villejuif, France.

SOURCE: LANCET, (2002 Jul 27) 360 (9329) 295-305.  
Journal code: 2985213R. ISSN: 0140-6736.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals

ENTRY MONTH: 200208

ENTRY DATE: Entered STN: 20020731

Last Updated on STN: 20020810

Entered Medline: 20020809

AB BACKGROUND: **Exosomes** derived from tumours are small **vesicles** released in vitro by tumour cell lines in culture supernatants. To assess the role of these **exosomes** in vivo, we examined malignant effusions for their presence. We also investigated whether these **exosomes** could induce production of tumour-specific T cells when pulsed with dendritic cells. METHODS: We isolated **exosomes** by ultracentrifugation on sucrose and D(2)O gradients of 11 malignant effusions. We characterised **exosomes**

with Western blot analyses, immunoelectron microscopy, and in-vitro stimulations of autologous T lymphocytes. FINDINGS: Malignant effusions accumulate high numbers of membrane **vesicles** that have a mean diameter of 80 nm (SD 30). These **vesicles** have antigen-presenting molecules (MHC class-I heat-shock proteins), tetraspanins (CD81), and tumour antigens (Her2/Neu, Mart1, TRP, gp100). These criteria, including their morphological characteristics, indicate the similarities between these **vesicles** and **exosomes**. **Exosomes** from patients with melanoma deliver Mart1 tumour antigens to dendritic cells derived from monocytes (MD-DCs) for cross presentation to clones of cytotoxic T lymphocytes specific to Mart1. In seven of nine patients with cancer, lymphocytes specific to the tumour could be efficiently expanded from peripheral blood cells by pulsing autologous MD-DCs with autologous ascitis **exosomes**. In one patient tested, we successfully expanded a restricted T-cell repertoire, which could not be recovered carcinomatosis nodules. INTERPRETATION: **Exosomes** derived from tumours accumulate in ascites from patients with cancer. Ascitis **exosomes** are a natural and new source of tumour-rejection antigens, opening up new avenues for immunisation against cancers.

L8 ANSWER 5 OF 16 CAPLUS COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 2002:930989 CAPLUS  
 TITLE: Tumor-derived **exosomes**: a new source of tumor rejection antigens  
 AUTHOR(S): Andre, F.; Schartz, N. E. C.; Chaput, N.; Flament, C.; Raposo, G.; **Amigorena, S.**; Angevin, E.; Zitvogel, L.  
 CORPORATE SOURCE: Immunology Unit, Unite d'immunologie, Institut Gustave Roussy, 39 rue Camille-Desmoulins, Cedex, Villejuif, F-94805, Fr.  
 SOURCE: Vaccine (2002), 20(Supplement4), A28-A31  
 CODEN: VACCDE; ISSN: 0264-410X  
 PUBLISHER: Elsevier Science Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB **Exosomes** are small **vesicles** released by a broad array of hematopoietic cells. Previous studies showed that **exosomes** released by antigen loaded dendritic cells induce immune-mediated anti-tumor response in mice. Here, we will describe the biochem. properties of tumor-derived **exosomes** and, their pre-clin. activity as cancer vaccines.

L8 ANSWER 6 OF 16 MEDLINE DUPLICATE 3  
 ACCESSION NUMBER: 2001333530 MEDLINE  
 DOCUMENT NUMBER: 21286480 PubMed ID: 11390481  
 TITLE: Proteomic analysis of dendritic cell-derived **exosomes**: a secreted subcellular compartment distinct from apoptotic **vesicles**.  
 AUTHOR: Thery C; Boussac M; Veron P; Ricciardi-Castagnoli P; Raposo G; Garin J; **Amigorena S**  
 CORPORATE SOURCE: Institut National de la Sante et de la Recherche Medical, Unite 520, Institut Curie, Paris, France..  
 clotilde.thery@curie.fr  
 SOURCE: JOURNAL OF IMMUNOLOGY, (2001 Jun 15) 166 (12) 7309-18.  
 Journal code: 2985117R. ISSN: 0022-1767.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals  
 ENTRY MONTH: 200108  
 ENTRY DATE: Entered STN: 20010827  
 Last Updated on STN: 20010827  
 Entered Medline: 20010823

AB Dendritic cells constitutively secrete a population of small (50-90 nm

diameter) Ag-presenting **vesicles** called **exosomes**. When sensitized with tumor antigenic peptides, dendritic cells produce **exosomes**, which stimulate anti-tumor immune responses and the rejection of established tumors in mice. Using a systematic proteomic approach, we establish the first extensive protein map of a particular **exosome** population; 21 new exosomal proteins were thus identified. Most proteins present in **exosomes** are related to endocytic compartments. New exosomal residents include cytosolic proteins most likely involved in **exosome** biogenesis and function, mainly cytoskeleton-related (cofilin, profilin I, and elongation factor 1alpha) and intracellular membrane transport and signaling factors (such as several annexins, rab 7 and 11, rap1B, and syntenin). Importantly, we also identified a novel category of exosomal proteins related to apoptosis: thioredoxin peroxidase II, Alix, 14-3-3, and galectin-3. These findings led us to analyze possible structural relationships between **exosomes** and microvesicles released by apoptotic cells. We show that although they both represent secreted populations of membrane **vesicles** relevant to immune responses, **exosomes** and apoptotic **vesicles** are biochemically and morphologically distinct. Therefore, in addition to cytokines, dendritic cells produce a specific population of membrane **vesicles**, **exosomes**, with unique molecular composition and strong immunostimulating properties.

L8 ANSWER 7 OF 16 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.  
 ACCESSION NUMBER: 2002046100 EMBASE  
 TITLE: **Exosomes** in cancer immunotherapy: Preclinical data.  
 AUTHOR: Andre F.; Andersen M.; Wolfers J.; Lozier A.; Raposo G.; Serra V.; Ruegg C.; Flament C.; Angevin E.; **Amigorena S.**; Zitvogel L.  
 CORPORATE SOURCE: F. Andre, Immunology Unit, Institut Gustave Roussy, Villejuif, France  
 SOURCE: Advances in Experimental Medicine and Biology, (2001) 495/- (349-354).  
 Refs: 13  
 ISSN: 0065-2598 CODEN: AEMBAP  
 COUNTRY: United States  
 DOCUMENT TYPE: Journal; Conference Article  
 FILE SEGMENT: 016 Cancer  
 026 Immunology, Serology and Transplantation  
 LANGUAGE: English

L8 ANSWER 8 OF 16 MEDLINE DUPLICATE 4  
 ACCESSION NUMBER: 2001198773 MEDLINE  
 DOCUMENT NUMBER: 21154956 PubMed ID: 11231627  
 TITLE: Tumor-derived **exosomes** are a source of shared tumor rejection antigens for CTL cross-priming.  
 AUTHOR: Wolfers J; Lozier A; Raposo G; Regnault A; Thery C; Masurier C; Flament C; Pouzieux S; Faure F; Tursz T; Angevin E; **Amigorena S.**; Zitvogel L  
 CORPORATE SOURCE: Immunology Unit, Department of Clinical Biology, Institut Gustave Roussy, Villejuif, France.  
 SOURCE: NATURE MEDICINE, (2001 Mar) 7 (3) 297-303.  
 Journal code: 9502015. ISSN: 1078-8956.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 200104  
 ENTRY DATE: Entered STN: 20010410  
 Last Updated on STN: 20010410  
 Entered Medline: 20010405

AB The initiation of T-cell-mediated antitumor immune responses requires the uptake and processing of tumor antigens by dendritic cells and their presentation on MHC-I molecules. Here we show in a human in vitro model

system that **exosomes**, a population of small membrane **vesicles** secreted by living tumor cells, contain and transfer tumor antigens to dendritic cells. After mouse tumor **exosome** uptake, dendritic cells induce potent CD8+ T-cell-dependent antitumor effects on syngeneic and allogeneic established mouse tumors. Therefore, **exosomes** represent a novel source of tumor-rejection antigens for T-cell cross priming, relevant for immunointerventions.

L8 ANSWER 9 OF 16 MEDLINE DUPLICATE 5  
 ACCESSION NUMBER: 2001488294 MEDLINE  
 DOCUMENT NUMBER: 21422224 PubMed ID: 11530496  
 TITLE: [Exosomes derived from dendritic cells].  
 Les **exosomes** derives des cellules dendritiques.  
 AUTHOR: Amigorena S  
 CORPORATE SOURCE: Unite INSERM U520, Institut Curie, 12, rue Lhomond, 75005  
 Paris, France.  
 SOURCE: JOURNAL DE LA SOCIETE DE BIOLOGIE, (2001) 195 (1) 25-7.  
 Ref: 11  
 Journal code: 100890617.  
 PUB. COUNTRY: France  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LANGUAGE: French  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 200110  
 ENTRY DATE: Entered STN: 20010904  
 Last Updated on STN: 20011029  
 Entered Medline: 20011025

AB Dendritic cells (DC) are potent antigen presenting cells and the only ones capable of inducing primary cytotoxic immune responses both in vivo and vitro. DCs secrete a 60-80 nm membrane **vesicle** population of endocytic origin, called **exosomes**. The protein composition of **exosomes** was analyzed using a systematic proteomic approach. Besides MHC and costimulatory molecules, **exosomes** bear several adhesion proteins, probably involved in their specific targeting. **Exosomes** also accumulate several cytosolic factors, most likely involved in exosome's biogenesis in late endosomes. Like DCs, **exosomes** induce potent anti tumor immune responses in vivo. Indeed, a single injection of DC-derived **exosomes** sensitized with tumor peptides induced the eradication of established mouse tumors. Tumor-specific cytotoxic T lymphocytes were found in the spleen of **exosome** treated mice, and depletion of CD8+ T cells in vivo inhibited the anti tumor effect of **exosomes**. These results strongly support the implementation of human DC-derived **exosomes** for cancer immunotherapy.

L8 ANSWER 10 OF 16 CAPLUS COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 2000:335525 CAPLUS  
 DOCUMENT NUMBER: 132:333388  
 TITLE: **Exosomes** containing major histocompatibility antigens and their preparation and diagnostic and therapeutic use  
 INVENTOR(S): Benaroch, Philippe; Vincent-Schneider, Helene; Stumptner, Pamela; Amigorena, Sebastian; Bonnerot, Christian; Raposo, Graca  
 PATENT ASSIGNEE(S): Institut National de la Sante et de la Recherche Medicale, Fr.; Institut Curie; Centre National de la Recherche Scientifique  
 SOURCE: PCT Int. Appl., 67 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000028001	A1	20000518	WO 1999-FR2691	19991104
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
FR 2785543	A1	20000512	FR 1998-13946	19981105
EP 1127110	A1	20010829	EP 1999-954055	19991104
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002529074	T2	20020910	JP 2000-581168	19991104
PRIORITY APPLN. INFO.: FR 1998-13946 A 19981105				
WO 1999-FR2691 W 19991104				

AB Membrane **vesicles** contg. defined members of the major histocompatibility complex, and their prepn. and use as immunogens or for diagnostic and therapeutic purposes are described. The **exosomes** may carry the antigen and another mol. of interest, e.g. as a reporter or an effector. The invention also concerns methods for producing said **vesicles**, genetic constructs, cells and compns., useful for implementing said methods. The **exosomes** are manufd. using host cells that do not synthesize their own MHC antigens. Expression of genes for the .alpha., .beta., and const. chains of HLA-DR1 in RBL-2H3 cells led to the accumulation of the antigen in **exosomes**. The **exosomes** could be released from the cells by treatment with ionomycin. Rats inoculated with these **exosomes** raised antibodies to the antigen.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 11 OF 16 MEDLINE DUPLICATE 6

ACCESSION NUMBER: 2001098651 MEDLINE

DOCUMENT NUMBER: 21030341 PubMed ID: 11188932

TITLE: Cancer immunotherapy using dendritic cell-derived **exosomes**.

AUTHOR: Amigorena S

CORPORATE SOURCE: Unite INSERM U520, Institut Curie, Paris, France.. sebastian.amigorena@curie.fr

SOURCE: MEDICINA, (2000) 60 Suppl 2 51-4. Journal code: 0204271. ISSN: 0025-7680.

PUB. COUNTRY: Argentina

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200102

ENTRY DATE: Entered STN: 20010322  
Last Updated on STN: 20010322  
Entered Medline: 20010201

AB Dendritic cells (DCs) are the most potent antigen presenting cells and the only ones capable of inducing primary cytotoxic immune responses. We found that DCs secrete a population of membrane **vesicles**, called **exosomes**. **Exosomes** are 60-80 nm **vesicles** of endocytic origin. The protein composition of **exosomes** was subjected to a systematic proteomic analysis. Besides MHC and co-stimulatory molecules, **exosomes** bear several adhesion proteins, most likely involved in their specific subjected to targeting. We also found that **exosomes** accumulate several cytosolic factors, probably involved in their endosomal biogenesis. Like DCs,



**exosomes** induced immune responses in vivo. Indeed, a single injection of DC-derived **exosomes** sensitized with tumor peptides induced potent anti tumor immune responses in mice and the eradication of established tumors. Tumor-specific cytotoxic T lymphocytes were found in the spleen of **exosome**-treated mice, and the anti tumor effect of **exosomes** was sensitive to in vivo depletion of CD8+ T cells. These results show that **exosomes** induce potent anti tumor effects in vivo, and strongly support the implementation of human DC-derived **exosomes** for cancer immunotherapy.

L8 ANSWER 12 OF 16 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:16570 CAPLUS

DOCUMENT NUMBER: 130:236031

TITLE: Dendritic cell-derived **exosomes**: potent immunogenic cell-free vaccines

AUTHOR(S): Zitvogel, Laurence; Regnault, Armelle; Lozier, Anne; Raposo, Graca; **Amigorena, Sebastian**

CORPORATE SOURCE: Laboratoire d'Immunologie Cellulaire, Departement de Biologie Clinique, Institut Gustave Roussy, Villejuif, Fr.

SOURCE: Dendritic Cells (1999), 643-652. Editor(s): Lotze, Michael T.; Thomson, Angus W. Academic: San Diego, Calif.

CODEN: 67DCAA

DOCUMENT TYPE: Conference; General Review

LANGUAGE: English

AB A review with 18 refs. discussing dendritic cell secretion of internal **vesicles** of multivesicular late endosomes, allostimulatory capacity and antigen presentation function of **exosomes**, and suppression of tumor growth by tumor peptide-pulsed dendritic cell-derived **exosomes**.

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 13 OF 16 MEDLINE DUPLICATE 7

ACCESSION NUMBER: 2000014998 MEDLINE

DOCUMENT NUMBER: 20014998 PubMed ID: 10545503

TITLE: Molecular characterization of dendritic cell-derived **exosomes**. Selective accumulation of the heat shock protein hsc73.

AUTHOR: Thery C; Regnault A; Garin J; Wolfers J; Zitvogel L; Ricciardi-Castagnoli P; Raposo G; **Amigorena S**

CORPORATE SOURCE: Institut National de la Sante et de la Recherche Medicale, U520, Institut Curie, 75005 Paris, France.

SOURCE: JOURNAL OF CELL BIOLOGY, (1999 Nov 1) 147 (3) 599-610. Journal code: 0375356. ISSN: 0021-9525.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199911

ENTRY DATE: Entered STN: 20000111

Last Updated on STN: 20000111

Entered Medline: 19991124

AB **Exosomes** are membrane **vesicles** secreted by hematopoietic cells upon fusion of late multivesicular endosomes with the plasma membrane. Dendritic cell (DC)-derived **exosomes** induce potent antitumor immune responses in mice, resulting in the regression of established tumors (Zitvogel, L., A. Regnault, A. Lozier, J. Wolfers, C. Flament, D. Tenza, P. Ricciardi-Castagnoli, G. Raposo, and S. Amigorena. 1998. Nat. Med. 4:594-600). To unravel the molecular basis of **exosome**-induced immune stimulation, we now analyze the regulation of their production during DC maturation and characterize extensively their protein composition by peptide mass mapping. **Exosomes** contain several cytosolic proteins (including annexin II, heat shock

cognate protein hsc73, and heteromeric G protein Gi2alpha), as well as different integral or peripherally associated membrane proteins (major histocompatibility complex class II, Mac-1 integrin, CD9, milk fat globule-EGF-factor VIII [MFG-E8]). MFG-E8, the major exosomal component, binds integrins expressed by DCs and macrophages, suggesting that it may be involved in **exosome** targeting to these professional antigen-presenting cells. Another **exosome** component is hsc73, a cytosolic heat shock protein (hsp) also present in DC endocytic compartments. hsc73 was shown to induce antitumor immune responses in vivo, and therefore could be involved in the **exosome's** potent antitumor effects. Finally, **exosome** production is downregulated upon DC maturation, indicating that in vivo, **exosomes** are produced by immature DCs in peripheral tissues. Thus, DC-derived **exosomes** accumulate a defined subset of cellular proteins reflecting their endosomal biogenesis and accounting for their biological function.

L8 ANSWER 14 OF 16 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
 ACCESSION NUMBER: 1999:173858 BIOSIS  
 DOCUMENT NUMBER: PREV199900173858  
 TITLE: Cross-presentation of tumor derived-**exosomes**: A possible mechanism for CTL-restricted antitumor immunity in vivo.  
 AUTHOR(S): Zitvogel, L.; Lozier, A.; Wolfers, J.; Regnault, A.; Raposo, G.; **Amigorena, S.**  
 CORPORATE SOURCE: Laboratoire d'Immunologie Clinique, Institut Gustave Roussy, Villejuif 94805 France  
 SOURCE: Proceedings of the American Association for Cancer Research Annual Meeting, (March, 1999) Vol. 40, pp. 425.  
 Meeting Info.: 90th Annual Meeting of the American Association for Cancer Research Philadelphia, Pennsylvania, USA April 10-14, 1999 American Association for Cancer Research  
 . ISSN: 0197-016X.  
 DOCUMENT TYPE: Conference  
 LANGUAGE: English

L8 ANSWER 15 OF 16 MEDLINE DUPLICATE 8  
 ACCESSION NUMBER: 1998244633 MEDLINE  
 DOCUMENT NUMBER: 98244633 PubMed ID: 9585234  
 TITLE: Eradication of established murine tumors using a novel cell-free vaccine: dendritic cell-derived **exosomes**  
 .  
 AUTHOR: Zitvogel L; Regnault A; Lozier A; Wolfers J; Flament C; Tenza D; Ricciardi-Castagnoli P; Raposo G; **Amigorena S**  
 CORPORATE SOURCE: CNRS URA 1301, Institut Gustave Roussy, Villejuif, France.  
 SOURCE: NATURE MEDICINE, (1998 May) 4 (5) 594-600.  
 Journal code: 9502015. ISSN: 1078-8956.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199805  
 ENTRY DATE: Entered STN: 19980611  
 Last Updated on STN: 19980611  
 Entered Medline: 19980529

AB Dendritic cells (DCs) are professional antigen presenting cells with the unique capacity to induce primary and secondary immune responses in vivo. Here, we show that DCs secrete antigen presenting **vesicles**, called **exosomes**, which express functional Major Histocompatibility Complex class I and class II, and T-cell costimulatory molecules. Tumor peptide-pulsed DC-derived **exosomes** prime specific cytotoxic T lymphocytes in vivo and eradicate or suppress growth of established murine tumors in a T cell-dependent manner. **Exosome**

-based cell-free vaccines represent an alternative to DC adoptive therapy for suppressing tumor growth.

L8 ANSWER 16 OF 16 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 1998:413882 BIOSIS  
DOCUMENT NUMBER: PREV199800413882  
TITLE: Dendritic cell-derived **exosomes** elicit potent  
anti-tumor immune responses in vivo.  
AUTHOR(S): **Amigorena, S. (1)**  
CORPORATE SOURCE: (1) CJF95-01 INSERM, Inst. Curie, 12 rue Lhomond, F-75005  
Paris France  
SOURCE: Hematology and Cell Therapy, (April, 1998) Vol. 40, No. 2,  
pp. 87-89.  
Meeting Info.: 8th Cell Therapy Workshop AMGEN-ROCHE Paris,  
France April 9, 1998  
ISSN: 1269-3286.  
DOCUMENT TYPE: Conference  
LANGUAGE: English  
SUMMARY LANGUAGE: English; French

=> dis his

(FILE 'HOME' ENTERED AT 09:53:25 ON 11 DEC 2002)

FILE 'MEDLINE, CAPLUS, EMBASE, BIOSIS' ENTERED AT 09:53:51 ON 11 DEC 2002

L1 616 S BENAROCH P?/AU OR VINCENT-SCHNEIDER H?/AU OR STUMPTER P?/AU O  
L2 75 S L1 AND VESICLE?  
L3 0 S L2 AND MASTOCYST?  
L4 0 S L2 AND MASTOCYTE?  
L5 0 S L1 AND MASTOCYTE  
L6 38 S L2 AND EXOSOME?  
L7 0 S L6 AND BASOPHIL?  
L8 16 DUP REM L6 (22 DUPLICATES REMOVED)

=> s (basophil? or mast) (P) vesicle

L9 1291 (BASOPHIL? OR MAST) (P) VESICLE

=> s (basophil? or mast) (P) exosome?

L10 22 (BASOPHIL? OR MAST) (P) EXOSOME?

=> dup rem l22

L22 IS NOT VALID HERE

The L-number entered has not been defined in this session, or it has been deleted. To see the L-numbers currently defined in this session, enter DISPLAY HISTORY at an arrow prompt (=>).

=> dup rem l0

ENTER L# LIST OR (END):end

=> dup rem L10

PROCESSING COMPLETED FOR L10

L11 12 DUP REM L10 (10 DUPLICATES REMOVED)

=> dis l11 not l6

L6 IS NOT VALID HERE

For an explanation, enter "HELP DISPLAY".

=> s l11 not l6

L12 10 L11 NOT L6

=> dis l12 1-10 ibib abs

L12 ANSWER 1 OF 10 MEDLINE  
ACCESSION NUMBER: 2002460092 IN-PROCESS

DOCUMENT NUMBER: 22207481 PubMed ID: 12217408  
 TITLE: Immunoregulatory properties of **mast** cell-derived **exosomes**.  
 AUTHOR: Dimitris Skokos; Hany Goubran; Michele Roa; Salah Mecheri  
 CORPORATE SOURCE: Unite d'Immuno-allergie, Institut Pasteur, 25 rue Dr Roux, 75724 Cedex 15, Paris, France.  
 SOURCE: MOLECULAR IMMUNOLOGY, (2002 Sep) 38 (16-18) 1359.  
 Journal code: 7905289. ISSN: 0161-5890.  
 PUB. COUNTRY: England: United Kingdom  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: IN-PROCESS; NONINDEXED; Priority Journals  
 ENTRY DATE: Entered STN: 20020910  
 Last Updated on STN: 20020910

AB Transmission of information from **mast** cells to neighboring or distant cells must be established continuously in order to ensure homeostasis or to initiate immune and inflammatory responses. Owing to their strategic location in peripheral tissues and their prompt response to various stimuli, **mast** cells can be considered as the cell prototype to fulfill such a sentinel function. There are several ways for **mast** cells to communicate with other cells including cell-cell interactions via membrane-associated receptors, cytokines and other soluble mediators, and a newly described messenger which consists of membrane vesicles called **exosomes** carrying a number of immunoregulatory molecules.

L12 ANSWER 2 OF 10 MEDLINE

ACCESSION NUMBER: 2001262354 MEDLINE  
 DOCUMENT NUMBER: 21203262 PubMed ID: 11306949  
 TITLE: Nonspecific B and T cell-stimulatory activity mediated by **mast** cells is associated with **exosomes**.  
 AUTHOR: Skokos D; Le Panse S; Villa I; Rousselle J C; Peronet R; Namane A; David B; Mecheri S  
 CORPORATE SOURCE: Unite d'Immuno-Allergie, Institut Pasteur, Paris, France.  
 SOURCE: INTERNATIONAL ARCHIVES OF ALLERGY AND IMMUNOLOGY, (2001 Jan-Mar) 124 (1-3) 133-6.  
 Journal code: 9211652. ISSN: 1018-2438.  
 PUB. COUNTRY: Switzerland  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 200105  
 ENTRY DATE: Entered STN: 20010521  
 Last Updated on STN: 20010521  
 Entered Medline: 20010517

AB Bone marrow-derived mouse **mast** cells (BMMC) and **mast** cell lines P815 and MC9 have recently been shown to induce antigen-independent B and T lymphocyte activation. It has been demonstrated that a physical contact between **mast** cells and B and T lymphocytes is not necessary since **mast** cell supernatants contain full activity. Electron microscopy studies revealed the presence in **mast** cell supernatants of small vesicles called **exosomes** with a heterogeneous size from 60 to 100 nm of diameter. When cocultured with spleen cells, purified **exosomes** induce B and T cell blast formation, proliferation as well as IL-2 and IFN-gamma production. In contrast to P815 and MC9 **mast** cell lines, a pretreatment with IL-4 is required for BMMC to produce active **exosomes**. Structurally, these **exosomes** were found to harbor immunologically relevant molecules such as MHC class II, CD86, LFA-1 and ICAM-1. Here we provide for the first time the evidence that **mast** cells use **exosomes** as sophisticated messengers to communicate with cells of the immune system.  
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L12 ANSWER 3 OF 10 MEDLINE

ACCESSION NUMBER: 2001139789 MEDLINE  
DOCUMENT NUMBER: 20581148 PubMed ID: 11145662  
TITLE: **Mast** cell-dependent B and T lymphocyte activation  
is mediated by the secretion of immunologically active  
**exosomes**.  
AUTHOR: Skokos D; Le Panse S; Villa I; Rousselle J C; Peronet R;  
David B; Namane A; Mecheri S  
CORPORATE SOURCE: Unite d'Immuno-Allergie, Institut Pasteur, Paris, France.  
Institut Jacques Monod, Unite Mixte de Recherche 7592,  
Paris, France.  
SOURCE: JOURNAL OF IMMUNOLOGY, (2001 Jan 15) 166 (2) 868-76.  
Journal code: 2985117R. ISSN: 0022-1767.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals  
ENTRY MONTH: 200103  
ENTRY DATE: Entered STN: 20010404  
Last Updated on STN: 20010404  
Entered Medline: 20010308

AB Mitogenic activity of bone marrow-derived mouse **mast** cells and  
**mast** cell lines P815 and MC/9 on B and T lymphocytes is present in  
their culture supernatants. To identify this activity, **mast**  
cells were incubated in serum-free medium and the supernatant was  
subjected to differential centrifugation, which resulted in two fractions,  
the hypodense and dense fraction (pellet). When analyzed for their  
mitogenic activity on spleen cells, all activity was found to be  
associated with the dense fraction. Electron microscopy studies revealed  
the presence in this fraction of small vesicles called **exosomes**  
with a heterogeneous size from 60 to 100 nm of diameter. When cocultured  
with spleen cells, purified **exosomes** induced blast formation,  
proliferation, as well as IL-2 and IFN-gamma production, but no detectable  
IL-4. Similar data were obtained by injecting **exosomes** into  
naive mice. In contrast to **mast** cell lines, a pretreatment with  
IL-4 is required for bone marrow-derived **mast** cells to secrete  
active **exosomes**. Structurally, **exosomes** were found to  
harbor immunologically relevant molecules such as MHC class II, CD86,  
LFA-1, and ICAM-1. These findings indicate that **mast** cells can  
represent a critical component of the immunoregulatory network through  
secreted **exosomes** that display mitogenic activity on B and T  
lymphocytes both in vitro and in vivo.

L12 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:662693 CAPLUS  
DOCUMENT NUMBER: 137:261470  
TITLE: Immunoregulatory properties of **mast**  
cell-derived **exosomes**  
AUTHOR(S): Dimitris, Skokos; Hany, Goubbran-Botros; Michele, Roa;  
Salah, Mecheri  
CORPORATE SOURCE: Unite d'Immuno-allergie, Institut Pasteur, Paris,  
75724, Fr.  
SOURCE: Molecular Immunology (2002), 38(16-18), 1359-1362  
CODEN: MOIMD5; ISSN: 0161-5890  
PUBLISHER: Elsevier Science Ltd.  
DOCUMENT TYPE: Journal; General Review  
LANGUAGE: English

AB A review. Transmission of information from **mast** cells to  
neighboring or distant cells must be established continuously in order to  
ensure homeostasis or to initiate immune and inflammatory responses.  
Owing to their strategic location in peripheral tissues and their prompt  
response to various stimuli, **mast** cells can be considered as the  
cell prototype to fulfill such a sentinel function. There are several  
ways for **mast** cells to communicate with other cells including  
cell-cell interactions via membrane-assocd. receptors, cytokines and other  
sol. mediators, and a newly described messenger which consists of membrane

vesicles called **exosomes** carrying a no. of immunoregulatory  
mols.

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 2002:95394 CAPLUS  
TITLE: **Mast** cell-dependent B and T lymphocyte  
activation is mediated by the secretion of  
immunologically active **exosomes**  
AUTHOR(S): Anon.  
SOURCE: Journal of Immunology (2002), 168(3), 1496  
CODEN: JOIMA3; ISSN: 0022-1767  
PUBLISHER: American Association of Immunologists  
DOCUMENT TYPE: Journal; Errata  
LANGUAGE: English  
AB Unavailable

L12 ANSWER 6 OF 10 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.  
ACCESSION NUMBER: 2002040582 EMBASE  
TITLE: Erratum: **Mast** cell-dependent B and T lymphocytes  
activation is mediated by the secretion of immunologically  
active **exosomes** (The Journal of Immunology (2001)  
166 (868-876)).  
AUTHOR: Skokos D.; Le Panse S.; Villa I.; Rousselle J.-C.; Peronet  
R.; David B.; Namane A.; Mecheri S.  
SOURCE: Journal of Immunology, (1 Feb 2002) 168/3 (1496).  
ISSN: 0022-1767 CODEN: JOIMA3  
COUNTRY: United States  
DOCUMENT TYPE: Journal; Errata  
FILE SEGMENT: 026 Immunology, Serology and Transplantation  
LANGUAGE: English

L12 ANSWER 7 OF 10 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.  
ACCESSION NUMBER: 2002036162 EMBASE  
TITLE: New insights into the immunoregulatory functions of mast  
cells.  
AUTHOR: Mecheri S.  
CORPORATE SOURCE: S. Mecheri, Immuno-allergy unit, Institut Pasteur, 28, rue  
du Docteur-Roux, 75015 Paris, France  
SOURCE: Revue Francaise d'Allergologie et d'Immunologie Clinique,  
(2002) 42/1 (6-10).  
Refs: 21  
ISSN: 0335-7457 CODEN: RFAIBB  
COUNTRY: France  
DOCUMENT TYPE: Journal; Conference Article  
FILE SEGMENT: 026 Immunology, Serology and Transplantation  
029 Clinical Biochemistry  
LANGUAGE: English  
SUMMARY LANGUAGE: English

AB **Mast** cells, which are preferentially located in connective  
tissues and epithelial layers, are now recognized as effector cells that  
participate in innate and acquired immunity. Upon activation with various  
secretagogues, **mast** cells release a large number of mediators  
stored in their secretory granules which consist of inflammatory  
mediators, cytokines, proteoglycans and neutral proteases. In addition to  
soluble mediators, **mast** cell granules have recently been shown  
to harbour small vesicles with immunoregulatory properties. Isolated  
**exosomes** have been shown to activate B and T lymphocytes and act  
as potent adjuvants for specific antibody responses in vivo. In this  
article I will discuss the mechanisms by which **mast** cells  
fulfill immunoregulatory functions that may be beneficial for the host.  
.COPYRG. 2002 Editions scientifiques et medicales Elsevier SAS.

L12 ANSWER 8 OF 10 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 2002:151543 BIOSIS  
DOCUMENT NUMBER: PREV200200151543  
TITLE: New-found regulators of angiogenesis: Platelet- and tumor-cell-derived microparticles.  
AUTHOR(S): Janowska-Wieczorek, Anna; Majka, Marcin (1); Kijowski, Jacek; Libura, Jola; Marquez, Leah; Zhao, Dongling; Ross, Lisa; Kawa, Milosz (1); Ratajczak, Mariusz Z. (1)  
CORPORATE SOURCE: (1) James Graham Brown Cancer Center, Univ. of Louisville, Louisville, KY USA  
SOURCE: Blood, (November 16, 2001) Vol. 98, No. 11 Part 2, pp. 54b. <http://www.bloodjournal.org/>. print.  
Meeting Info.: 43rd Annual Meeting of the American Society of Hematology, Part 2 Orlando, Florida, USA December 07-11, 2001  
ISSN: 0006-4971.  
DOCUMENT TYPE: Conference  
LANGUAGE: English

AB Microparticles (MP) are circular membrane fragments shed from the surface of activated eukaryocytic cells or secreted as **exosomes**. MP in the environment of the growing tumor may be derived from i) the tumor cells by shedding, ii) peripheral blood (PB) platelets activated by tumor cells and iii) tumor-infiltrating lymphocytes, monocytes and **basophils**. We hypothesize that MP are important but under-appreciated components of the microenvironment of growing tumors that may modulate their biology. In support of this we found that MP are secreted from many human tumor cell lines (neuroblastomas, rhabdomyosarcomas, lung cancer, melanomas), that their secretion is increased (up to 20 times) after exposure of these cells to chemokines (RANTES, MIP-1a, etc.) and complement protein (C3a), and that these tumor cells may activate PB platelets which then release platelet-derived MP. To learn more about the biological effects of MP in tumorigenesis and angiogenesis we isolated and purified MP from tumor cells and activated PB platelets and subsequently exposed tumor and endothelial cells (HUVEC) to them. We observed that MP stimulated phosphorylation of MAPK p42/44, activated the PI-3K-AKT axis in several tumor cell lines and significantly increased the secretion of the angiogenic factors VEGF and FGF-2. Moreover, incubation of these cell lines with platelet-derived MP modified the activities of the matrix metalloproteinases (MMPs), necessary for endothelial cell migration and proliferation, that they secreted. We found after exposure to MP the active form of MMP-2 (which was inhibited by o-phenanthroline) in several neuroblastoma (6 out of 6 cell lines) and rhabdomyosarcoma (5/6) cell lines. Furthermore, MP derived from tumor cell lines chemo-attracted HUVEC directly and stimulated their proliferation in vitro. Generally, the biological effects of PMPs were only partly reduced by heat inactivation or trypsin digest, indicating that, in addition to the protein components of PMPs, lipid components are also responsible for their biological activity. Further studies are needed and are under way, however, to identify the PMP components that exert specific biological effects. We conclude that MP play an important role in angiogenesis by i) stimulating secretion of angiogenic factors by tumor cells, ii) activating MMP-2, and iii) stimulating endothelial cells directly. A better understanding of the role MP play in angiogenesis could help us to develop novel therapeutic anti-angiogenic approaches for treatment of various malignant disorders.

L12 ANSWER 9 OF 10 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 2001:199751 BIOSIS  
DOCUMENT NUMBER: PREV200100199751  
TITLE: Mouse and human **mast** cells secrete **exosomes** with immunostimulatory activity on B and T lymphocytes.  
AUTHOR(S): Skokos, D. (1); Le Panse, S.; Villa, I. (1); Rousselle, J. C. (1); Peronet, R. (1); David, B. (1); Namane, A. (1); Mecheri, S. (1)  
CORPORATE SOURCE: (1) Institut Pasteur, Paris France

SOURCE: Journal of Allergy and Clinical Immunology, (February, 2001) Vol. 107, No. 2, pp. S295. print.  
Meeting Info.: 57th Annual Meeting of the American Academy of Allergy, Asthma and Immunology New Orleans, Louisiana, USA March 16-21, 2001  
ISSN: 0091-6749.

DOCUMENT TYPE: Conference  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L12 ANSWER 10 OF 10 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1997:97843 BIOSIS

DOCUMENT NUMBER: PREV199799397046

TITLE: Release of MHC class II-enriched **exosomes** during **mast** cell degranulation.

AUTHOR(S): Bonnerot, C. (1); Raposo, G.; Mercheri, S.; Tenza, D.; Desaymard, C.

CORPORATE SOURCE: (1) Inst. Curie, Section Recherche, 25 rue Dr. Roux, 75015 Paris France

SOURCE: Molecular Biology of the Cell, (1996) Vol. 7, No. SUPPL., pp. 610A.

Meeting Info.: Annual Meeting of the 6th International Congress on Cell Biology and the 36th American Society for Cell Biology San Francisco, California, USA December 7-11, 1996

ISSN: 1059-1524.

DOCUMENT TYPE: Conference; Abstract; Conference  
LANGUAGE: English

=> dis his

(FILE 'HOME' ENTERED AT 09:53:25 ON 11 DEC 2002)

FILE 'MEDLINE, CAPLUS, EMBASE, BIOSIS' ENTERED AT 09:53:51 ON 11 DEC 2002

L1 616 S BENAROCH P?/AU OR VINCENT-SCHNEIDER H?/AU OR STUMPTER P?/AU O  
L2 75 S L1 AND VESICLE?  
L3 0 S L2 AND MASTOCYST?  
L4 0 S L2 AND MASTOCYTE?  
L5 0 S L1 AND MASTOCYTE  
L6 38 S L2 AND EXOSOME?  
L7 0 S L6 AND BASOPHIL?  
L8 16 DUP REM L6 (22 DUPLICATES REMOVED)  
L9 1291 S (BASOPHIL? OR MAST) (P) VESICLE  
L10 22 S (BASOPHIL? OR MAST) (P) EXOSOME?  
L11 12 DUP REM L10 (10 DUPLICATES REMOVED)  
L12 10 S L11 NOT L6

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ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF

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FILE 'MEDLINE, CAPLUS, EMBASE, BIOSIS' ENTERED AT 09:53:51 ON 11 DEC 2002

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L1      616 S BENAROCH P?/AU OR VINCENT-SCHNEIDER H?/AU OR STUMPTER P?/AU O
L2      75 S L1 AND VESICLE?
L3      0 S L2 AND MASTOCYST?
L4      0 S L2 AND MASTOCYTE?
L5      0 S L1 AND MASTOCYTE
L6      38 S L2 AND EXOSOME?
L7      0 S L6 AND BASOPHIL?
L8      16 DUP REM L6 (22 DUPLICATES REMOVED)
L9      1291 S (BASOPHIL? OR MAST) (P) VESICLE
L10     22 S (BASOPHIL? OR MAST) (P) EXOSOME?
L11     12 DUP REM L10 (10 DUPLICATES REMOVED)
L12     10 S L11 NOT L6
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